

What is claimed is:

1        1. An image transfer sheet, comprising:  
2        a support sheet having a first and a second surface;  
3        at least one release layer on said first surface of said  
4 support sheet;  
5        a design layer comprising imaged areas on said release  
6 layer;  
7        a non-water-dispersible polymer layer; and  
8        a transfer blocking overcoat layer on said non-water-  
9 dispersible polymer layer, wherein said transfer blocking  
10 overcoat layer outlines at least one imaged area or selected  
11 imaged areas in said design layer, but does not cover said  
12 image area within the outline, wherein said transfer blocking  
13 overcoat layer allows transfer of only said release layer,  
14 said image areas of the design layer and said non-water-  
15 dispersible polymer layer within said outlined image area.

1        2. The image transfer sheet according to claim 1, which  
2 further comprises a barrier layer between the first surface of  
3 said support sheet and said release layer.

1        3. The image transfer sheet according to claim 1, which  
2 further comprises an image-receiving layer between said  
3 release layer and said design layer.

1        4. The image transfer sheet according to claim 1, which  
2 further comprises an antistatic layer on the second surface of  
3 said support sheet.

1        5. The image transfer sheet according to claim 1,  
2 wherein said non-water-dispersible polymer is a plastisol.

1        6. The image transfer sheet according to claim 1,  
2 wherein said transfer blocking overcoat layer is clear or  
3 opaque.

1        7. The image transfer sheet according to claim 1,  
2 wherein said transfer blocking overcoat layer is a screen ink  
3 lacquer.

1        8. The image transfer sheet according to claim 7,  
2 wherein said lacquer contains a polymeric crosslinked resin.

3        9. The image transfer sheet according to claim 8, wherein  
4 said resin is selected from the group consisting of epoxy-  
5 polyesters, epoxypolyamides, polyisocyanate/polyester  
6 mixtures, polyisocyanate/polyol mixtures,  
7 polyisocyanate/acrylic mixtures, polyisocyanate/polyamide  
8 mixtures and urethane/acrylic mixtures.

1        10. The image transfer sheet according to claim 1,  
2 wherein said transfer can be performed with a pressure of less  
3 than 30 psi.

1        11. An image transfer sheet, comprising:  
2 a support sheet having a first and a second surface;  
3 at least one release layer on said first surface of said  
4 support sheet;  
5 a design layer comprising imaged areas on said release  
6 layer;  
7 a non-water-dispersible polymer layer on said design  
8 layer; and  
9 a transfer blocking overcoat layer, wherein said transfer  
10 blocking overcoat layer outlines at least one imaged area or  
11 selected image areas on said design layer, but does not cover

12 said image area within the outline, and said non-water-  
13 dispersible polymer layer covers areas within the outline of  
14 the transfer blocking polymer layer, wherein said transfer  
15 blocking overcoat layer allows transfer of only said release  
16 layer, said outlined image area of the design layer, and said  
17 non-water-dispersible polymer layer within said outlined image  
18 area.

1 12. The image transfer sheet according to claim 11,  
2 which further comprises a barrier layer between the first  
3 surface of said support sheet and said release layer.

1 13. The image transfer sheet according to claim 11,  
2 which further comprises an image-receiving layer between said  
3 release layer and said design layer.

1 14. The image transfer sheet according to claim 11,  
2 which further comprises an antistatic layer on the second  
3 surface of said support sheet.

1 15. The image transfer sheet according to claim 11,  
2 wherein said non-water-dispersible polymer is a plastisol.

1 16. The image transfer sheet according to claim 11,  
2 wherein said transfer blocking overcoat layer is clear or  
3 opaque.

1 17. The image transfer sheet according to claim 11,  
2 wherein said transfer blocking overcoat layer is a screen ink  
3 lacquer.

1 18. The transfer sheet according to claim 17, wherein  
2 said lacquer contains a polymeric crosslinked resin.

1        19. The transfer sheet according to claim 18, wherein  
2 said resin is selected from the group consisting of epoxy-  
3 polyesters, epoxypolyamides, polyisocyanate/polyester  
4 mixtures, polyisocyanate/polyol mixtures,  
5 polyisocyanate/acrylic mixtures, polyisocyanate/polyamide  
6 mixtures and urethane/acrylic mixtures.

1        20. The image transfer sheet according to claim 11,  
2 wherein said transfer can be performed with a pressure of less  
3 than 30 psi.

1        21. An image transfer sheet, comprising:  
2        a support sheet having a first and a second surface;  
3        at least one release layer on said first surface of said  
4 support sheet;  
5        a design layer comprising imaged areas on said release  
6 layer; and  
7        a transfer blocking overcoat layer, wherein said transfer  
8 blocking overcoat layer outlines at least one image area or  
9 selected image areas on said design layer, but does not cover  
10 said at least one image area, wherein said transfer blocking  
11 overcoat layer allows transfer of only said release layer, and  
12 said outlined image area of the design layer within said  
13 outlined image area, wherein said transfer can be performed  
14 with a pressure of less than 30 psi.

1        22. The image transfer sheet according to claim 21,  
2 which further comprises a barrier layer between the first  
3 surface of said support sheet and said release layer.

1        23. The image transfer sheet according to claim 21,  
2 which further comprises an image-receiving layer between said  
3 release layer and said design layer.

1        24. The image transfer sheet according to claim 21,  
2 which further comprises an antistatic layer on the second  
3 surface of said support sheet.

1        25. The image transfer sheet according to claim 21,  
2 wherein said transfer blocking overcoat layer is clear or  
3 opaque.

1        26. The image transfer sheet according to claim 21,  
2 wherein said transfer blocking overcoat layer is a screen ink  
3 lacquer.

1        27. The transfer sheet according to claim 26, wherein  
2 said lacquer contains a polymeric crosslinked resin.

1        28. The transfer sheet according to claim 27, wherein  
2 said resin is selected from the group consisting of epoxy-  
3 polyesters, epoxypolyamides, polyisocyanate/polyester  
4 mixtures, polyisocyanate/polyol mixtures,  
5 polyisocyanate/acrylic mixtures, polyisocyanate/polyamide  
6 mixtures and urethane/acrylic mixtures.

1        29. An image transfer sheet, comprising:  
2 a support sheet having a first and a second surface;  
3 an optional barrier layer on said first surface of said  
4 support sheet;  
5 at least one release layer on said optional barrier  
6 layer, wherein said release layer contains components which  
7 form imaged areas;

8 an optional non-water-dispersible polymer layer on said  
9 release layer; and

10 a transfer blocking overcoat layer, wherein said transfer  
11 blocking overcoat layer outlines at least one imaged area or  
12 selected imaged areas, but does not cover said at least one  
13 image area, wherein said transfer blocking overcoat layer  
14 allows transfer of only said optional barrier layer, said  
15 release layer, said outlined image area, and said optional  
16 non-water-dispersible polymer layer within said outlined image  
17 area.

1 30. An image transfer sheet, comprising:

2 a support sheet having a first and a second surface;

3 at least one release layer on said first surface of said  
4 support sheet;

5 a design layer comprising imaged areas on said release  
6 layer; and

7 a non-water-dispersible polymer layer on said design  
8 layer, wherein said non-water-dispersible polymer layer covers  
9 at least one image area or selected image areas on said design  
10 layer.

1 31. A process for heat transferring an imaged area from  
2 a transfer sheet to a receptor, comprising the steps:

3 contacting a receptor with the transfer blocking overcoat  
4 layer of the image transfer sheet of claim 1;

5 applying heat and pressure to the second surface of the  
6 support sheet sufficient to transfer said image area to said  
7 receptor to form an imaged receptor; and

8 removing said image transfer sheet, without the outlined  
9 imaged area, from said imaged receptor.

1        32. The process according to claim 31, wherein said heat  
2 is applied at a temperature from about 110 to 220 °C.

1        33. The process according to claim 31, wherein said  
2 pressure is applied at less than 30 psi.

1        34. The process according to claim 33, wherein said  
2 pressure is applied at less than 20 psi.

1        35. A process for heat transferring an imaged area from  
2 a transfer sheet to a receptor, comprising the steps:  
3        contacting a receptor with the transfer blocking overcoat  
4 layer of the image transfer sheet of claim 11;  
5        applying heat and pressure to the second surface of the  
6 support sheet sufficient to transfer said image area to said  
7 receptor to form an imaged receptor; and  
8        removing said image transfer sheet, without the outlined  
9 imaged area, from said imaged receptor.

1        36. The process according to claim 35, wherein said heat  
2 is applied at a temperature from about 110 to 220 °C.

1        37. The process according to claim 35, wherein said  
2 pressure is applied at less than 30 psi.

1        38. The process according to claim 37, wherein said  
2 pressure is applied at less than 20 psi.

1        39. A process for heat transferring an imaged area from  
2 a transfer sheet to a receptor, comprising the steps:  
3        contacting a receptor with the transfer blocking overcoat  
4 layer of the image transfer sheet of claim 21;

5 applying heat and pressure to the second surface of the  
6 support sheet sufficient to transfer said image area to said  
7 receptor to form an imaged receptor; and  
8 removing said image transfer sheet, without said outlined  
9 imaged area, from said imaged receptor.

1 40. The process according to claim 39, wherein said heat  
2 is applied at a temperature from about 110 to 220 °C.

1 41. The process according to claim 40, wherein said  
2 pressure is applied at less than 30 psi.

1 42. The process according to claim 41, wherein said  
2 pressure is applied at less than 20 psi.

1 43. A process for heat transferring an image area from a  
2 transfer sheet to a receptor, comprising the steps:  
3 contacting a receptor with a transfer blocking overcoat  
4 layer of the image transfer sheet of claim 29;  
5 applying heat and pressure to the support sheet  
6 sufficient to transfer said image area to said receptor to  
7 form an imaged receptor; and  
8 removing said image transfer sheet from said imaged  
9 receptor.

1 44. A process for heat transferring an image area from a  
2 transfer sheet to a receptor, comprising the steps:  
3 contacting a receptor with a transfer blocking overcoat  
4 layer of the image transfer sheet of claim 30;  
5 applying heat and pressure to the support sheet  
6 sufficient to transfer said image area to said receptor to  
7 form an imaged receptor; and removing said image transfer  
8 sheet from said imaged receptor.